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Christopher J. Clements

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EXAMINER

WOLLSCHLAGER, JEFFREY MICHAEL

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**DETAILED ACTION*****Response to Arguments***

Applicant's arguments filed September 12, 2008 have been fully considered but they are not persuasive. As an initial matter, the examiner submits and notes that the rejection being traversed is Knuttson et al. in view of Delvaux et al. AND Chiu et al. (emphasis added). As such, while the examiner may agree with certain characterizations of the references individually, a large portion of the arguments in general appear to ignore that it is both Delvaux and Chiu et al. together that when combined with Knuttson et al. teach and suggest the claimed invention. Accordingly, it is noted that with arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant argues that neither Delvaux et al. nor Knuttson teach a liquid sugar binder. This argument is not persuasive. The examiner notes that the rejection is based on a combination with Chiu et al. as well. Additionally, Delvaux et al. teach an aqueous (i.e. liquid) mixture containing sugar. The examiner submits that as set forth in claim 1, sugar and water mixed together are reasonably understood to form a "liquid sugar". Further, the examiner submits that the employment of other additives by Delvaux et al. does not overcome the prima facie case based upon the combination of the three references.

Additionally, applicant argues that there is no motivation to combine the references. This argument is not persuasive. The examiner notes that Chiu et al. teach that a sucrose solution can be used to replace phenolic binders and that such a sucrose based binder is environmentally friendly and can be easily reused/recycled (Abstract; col. 4, lines 30-67).

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Applicant argues that the curing temperatures of Knuttson et al. would destroy the sugar and that the examiner has not considered the high temperature employed by Chiu et al. This argument is not persuasive. The examiner submits the combination suggest replacing the binder of Knuttson et al. with the binder set forth by Chiu et al. It follows from the combination that the curing temperature would be adjusted by the ordinarily skilled artisan as required. Further, there is motivation set forth by Chiu et al. to heat the material to 200-300 °C (i.e. at least partially caramelize the sugar) to remove the water from sugar solution and to form a dried article with the sugar now in an infusible and insoluble cured, polymeric form (Chiu et al. col. 7, lines 10-12). Chiu et al. finally, in an additional step which is not applicable in the combination, carbonize the fibers at high temperature. In the combination with Knutsson et al. (the primary reference), this additional step performed by Chiu et al. is not suggested or required. The pertinent teaching of Chiu et al. is that a sugar solution can replace phenolic binders for bonding fibers and that when heated to 200-300 °C form an infusible, insoluble cured polymeric form.

Applicant's other arguments point out how the other applied prior art does not remedy the deficiency of the rejection of claim 1. This argument is not persuasive. The examiner maintains that a prima facie case has been established for the reasons set forth above and in the final rejection and that no such deficiency exists. Accordingly, the examiner maintains the rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY WOLLSCHLAGER whose telephone number is (571)272-8937. The examiner can normally be reached on Monday - Thursday 6:45 - 4:15, alternating Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/J. W./

Examiner, Art Unit 1791

September 24, 2008

/Monica A Huson/

Primary Examiner, Art Unit 1791